

STATEMENT OF LEGAL AND FACTUAL BASIS

Intermet Corporation
Intermet Corporation, Radford Plant
Radford, Virginia
Permit No.: VA-21256
Permit Date: **December 1, 2003**
AFS ID No.: 51-121-0081

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Intermet Corporation has applied for a Title V Operating Permit for its Radford facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

FACILITY INFORMATION

<u>Permittee</u>	<u>Facility</u>
Intermet Corporation 5445 Corporate Drive Troy, Michigan 48098	Intermet Corporation, Radford Plant 1605 & 1701 West Main Street Radford, Virginia 24141

Prepared By:
Environmental Engineer Senior

Date: **December 1, 2003**

SOURCE DESCRIPTION

SIC Code: 3321- Establishments primarily engaged in manufacturing gray and ductile iron castings, including cast iron pressure and soil pipes and fittings.

The facility is a gray iron / ductile iron foundry which produces iron castings for the automotive and other industries. The facility utilizes both cupolas and induction furnaces to melt metal. The facility originated from two distinct plants, Lynchburg Foundry Co. (Registration No. 20381) and New River Castings (Registration No. 21083). The two plants were combined under a state operating permit to be a single source, Intermet Corporation - Radford Plant operating as Registration No. 21256. Lynchburg Foundry is now referred to as the Radford Foundry, and New River Castings is now referred to as New River Foundry

Radford Foundry (Lynchburg Foundry Co.)

Iron production at the Lynchburg Foundry Co. Section (LFC) of the Radford plant is generally divided into the following processes: metal melting, metal casting, casting finishing, and sand handling. Metal melting is accomplished in two cupolas (only one cupola is operated at a time) into which metal (scrap and foundry returns) and coke are charged in the upper portion of the units. The molten metal exits from the lower part of the cupolas through a tap hole into ladles. The molten metal is treated and placed in holding furnaces prior to ladle transfer to the metal casting lines. The metal is poured into sand molds supported by shot and allowed to cool along a conveyor system. The castings are separated from the shot/sand at the shake out area. The shot and sand are recovered and the castings continue cooling on the conveyor to the finishing area. Finishing involves physical removal of extraneous metal with hammers, shot blasting, and hand grinding. The facility also has a small pattern shop to develop and refine the patterns used for molds and cores.

The sand handling system includes unloading of sand into storage silos, mixing of sand with resin, transferring the sand to machines for the production of either molds or cores, and collecting and reclaiming the return sand from the shake out area. Sand molds provide the exterior shape of the casting. Cores are used for specific internal voids (e.g., recessed curves and hollow areas). Some cores are coated with a water-based graphite solution and then dried in ovens.

Combustion units at the facility include the cupola and associated air preheater, molding machines, core machines, core drying ovens, sand reclaim furnace, afterburner, ladle and space heaters.

New River Castings

Iron production at the New River Castings Section (NRC) is generally divided into the same process areas as LFC: metal melting, casting molding, casting finishing, and sand handling. Metal is melted in electric induction furnaces at NRC. Some of the scrap must be preheated to remove moisture prior to loading into the furnaces. The molten metal is

poured into ladles and placed in electric holding furnaces prior to metal treatment and transfer to the casting mold lines. At the lines the metal is poured into molds and allowed to cool along a conveyor system. The castings are separated from the mold/core sand at the shake out area. The sand is recovered and the castings continue cooling on the conveyor to the finishing area. Finishing involves removal of extraneous metal with hammers, shot blasting, and hand grinding. The facility also has a small pattern shop to develop and refine the patterns used for molds and cores.

The sand handling system includes unloading of sand into storage silos, transferring the sand to the mold and core making machines, and collecting the return sand from the shake out area. In addition, a mechanical reclaimer reclaims used molding sand into core sand. Molds provide the exterior shape of the casting and are made from sand, clay, and organic matter. Cores are used for specific internal voids (e.g., recessed curves and hollow areas). NRC uses a cold-box core making system. In this process core sand is mixed with a two-part resin system. Triethylamine (TEA) or Dimethylethylamine (DMEA) is used to catalyze the resin to produce the desired core structure. Some cores are coated with a water-based graphite solution and then dried in ovens.

Combustion units at the facility include the scrap metal preheater, duct heaters, and various ladle and space heaters.

The combined facility is a Title V major source of TSP, PM₁₀, SO₂, NO_x, CO, VOC and combined HAPs. This source is located in an attainment area for all pollutants, and is a PSD major source. The facility will be subject to 40 CFR 63 Subpart EEEEE, National Emission Standards for Hazardous Air Pollutants for Iron & Steel Foundries, as well as other MACT's currently proposed (see future applicable requirements). The facility will comply with each final promulgated regulation by the compliance deadlines contained in the applicable subpart.

The facility was previously permitted under a State Operating Permit issued on September 27, 1995, and amended on June 20, 1996, September 8, 1998, and April 2, 1999. A new SOP was issued June 14, 2000, which incorporated New Source Conditions for replacement of equipment destroyed in an explosion at the New River Foundry. The June 14, 2000 permit was amended July 23, 2002, to extend the deadline for compliance with the new opacity standard on some of the units at the plant, while accelerating the compliance dates for other units. The SOP process included public notice and a public hearing. As a result of this process the SOP is federally enforceable and all conditions are considered FEARs (Federally Enforceable Applicable Requirements), except for those conditions included in the state only section of the permit. The public notice for the SOP included a statement that some conditions were not to be federally enforceable. State toxic rule conditions were not considered federally enforceable. The permit

was written and advertised such that those conditions would not be federally enforceable.

COMPLIANCE STATUS

The facility is normally inspected at least twice per year. A consent order, dated February 28, 2000, was issued for violations at the LFC side of the plant, the conditions of the consent order have been fulfilled and/or incorporated into the main portion of the Title V permit. There is no compliance plan. The facility had a fugitive emission problem at the New River Foundry (NRC). These issues were addressed by additional requirements in the June 14, 2000, SOP as amended and have been included in the Title V permit as federally enforceable.

On 12/4/02 DEQ staff conducted a partial compliance evaluation of the facility. During this inspection staff noted several items of concern. These being fugitive dust, malfunctioning equipment, and poor house keeping. The facility submitted a response to these items and no enforcement actions were taken.

On 2/13/03 DEQ staff conducted a partial compliance evaluation of the facility. During this inspection staff noted several items of concern. These items were the same as before: fugitive dust from the baghouses, malfunctioning equipment, inadequate record keeping, and poor house keeping practices.

On 2/24/03 DEQ staff issued a Warning Letter for the apparent violations listed above. The facility submitted a written response on 3/12/03. The facility is considered to be in compliance by inspection.

Intermet Corporation has been studying the continued viability of the Radford Foundry operation. The plant is old and demand for the product has waned over the years. Currently proposed federal regulations as well as meeting the 5% opacity limit for the Radford Foundry in the current state operating permit will require significant investment in improved air emission controls. Intermet has discussed the possibility of the Radford Foundry being shut down. Intermet has recently issued a press release stating the facility will shut down by the end of 2003. The conditions in the SOP have been amended to allow for the shut down, or partial shutdown, of the Radford Foundry to achieve compliance with the facility wide 5% opacity limit.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Radford Foundry (LFC - Lynchburg Foundry Co.) (Max Rated Capacity: 127,750 TPY of metal melted, prior to initiation of emissions trading with New River Foundry, NRC - New River Castings)							
LFE02 through LFE14		Core machines					
LFE15 through LFE24 & LFE63	LFPV14 through LFPV23	Mold Machines					
LFE25 through LFE26		Core Ovens					
LFE27	LFDC13	Sand Reclaim Furnace		Baghouse	LFC13	Particulate	SOP 6/14/2000 as amended
LFE29& LFE30	LFNPV01 LFNVP06	Sand Mullers					
LFE31		Cupola Combustion Air Preheater					
LFE32 through LFE41		Ladle heaters					
LFE42		Charge preparation					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
LFE43	LFDC16	Cupola with Dry Powder Injection		CO afterburner Baghouse	LFC28 LFC16	CO Particulate	SOP 6/14/2000 as amended
LFE44	LFPV01 through LFPV08	Ladles (transfer and treatment)					
LFE45 & LFE46	LFPV01 through LFPV08	Electric induction holding furnaces					
LFE47	LFDC09	Pouring		Baghouse	LFC09	Particulate	SOP 6/14/2000 as amended
LFE48	LFDC02	Mold cooling system		Baghouse	LFC02	Particulate	SOP 6/14/2000 as amended
LFE49	LFDC12	Shake out		Baghouse	LFC12	Particulate	SOP 6/14/2000 as amended
LFE50	LFPV37 through LFPV40	Casting cooling system					
LFE61	LFDC11 LFDC12	Sand & Shot handling		Baghouse Baghouse	LFC11 LFC12	Particulate Particulate	SOP 6/14/2000 as amended
LFE52 through LFE55	LFDC01 LFDC05 LFDC06	Shot blasting machines (No. 2, No. 3, No. 4 No. 5)		Baghouse Baghouse Baghouse	LFC01 LFC05 LFC06	Particulate Particulate Particulate	SOP 6/14/2000 as amended
LFE56 through LFE60	LFDC01 LFDC03 LFDC07	Casting finishing lines		Baghouse Baghouse Baghouse	LFC01 LFC03 LFC07	Particulate Particulate Particulate	SOP 6/14/2000 as amended

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
LFE62	LFDC07 LFDC08 LFDC11	Sand handling and mold making equipment		Baghouse Baghouse Baghouse	LFC07 LFC08 LFC11	Particulate Particulate Particulate	SOP 6/14/2000 as amended
New River Foundry (NRC - New River Castings) (Permitted Capacity after emission trading with LFC: 250,000 TPY metal melted)							
NRE07	NRDC12	Scrap preheater		Baghouse	NRC12	Particulate	SOP 6/14/2000 as amended
NRE28 through NRE32	NRDC01 NRDC02 NRDC12	Electric induction melting furnaces		Baghouse Baghouse Baghouse	NRC01 NRC02 NRC12	Particulate Particulate Particulate	SOP 6/14/2000 as amended
NRE33 & NRE34	NRDC01 NRDC02	Holding furnaces		Baghouse Baghouse	NRC01 NRC02	Particulate Particulate	SOP 6/14/2000 as amended
NRE35 & NRE36	NRDC12	Magnesium treatment		Baghouse	NRC12	Particulate	SOP 6/14/2000 as amended
NRE37 & NRE38	NRDC07 NRDC10	Inoculation		Baghouse Baghouse	NRC07 NRC10	Particulate Particulate	SOP 6/14/2000 as amended
NRE57		Scrap and metal handling area					
NRE41	NRDC07	Line 1 metal pouring		Baghouse	NRC07	Particulate	SOP 6/14/2000 as amended
NRE42	NRDC10	Line 2 metal pouring		Baghouse	NRC10	Particulate	SOP 6/14/2000 as amended
NRE43	NRDC07	Line 1 mold cooling system		Baghouse	NRC07	Particulate	SOP 6/14/2000 as amended

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NRE44	NRDC03	Line 2 mold cooling system		Baghouse	NRC03	Particulate	SOP 6/14/2000 as amended
NRE54	NRDC07 NRDC09	Line 1 shake out		Baghouse Baghouse	NRC07 NRC09	Particulate Particulate	SOP 6/14/2000 as amended
NRE55	NRDC03 NRDC04	Line 2 shake out		Baghouse Baghouse	NRC03 NRC04	Particulate Particulate	SOP 6/14/2000 as amended
NRE45	NRDC07 NRDC09	Line 1 casting cooling system		Baghouse Baghouse	NRC07 NRC09	Particulate Particulate	SOP 6/14/2000 as amended
NRE46	NRDC04	Line 2 casting cooling system		Baghouse	NRC04	Particulate	SOP 6/14/2000 as amended
NRE49 through NRE51	NRDC05 NRDC06	Casting Finishing Lines		Baghouse Baghouse	NRC05 NRC06	Particulate Particulate	SOP 6/14/2000 as amended
NRE24	NRDC08	Continuous Blast Machine		Baghouse	NRC08	Particulate	SOP 6/14/2000 as amended
NRE23	NRDC03	Casting Rework/ Sample Blast Machine		Baghouse	NRC03	Particulate	SOP 6/14/2000 as amended
NRE21 & NRE22	NRDC06	Blast Machines		Baghouse	NRC06	Particulate	SOP 6/14/2000 as amended
NRE47 & NRE48	NRDC07 NRDC03	Sand binder additive mixers		Baghouse Baghouse	NRC07 NRC03	Particulate Particulate	SOP 6/14/2000 as amended
NRE39 & NRE40		Mold Machines					

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
NRE02 through NRE06 & NRE52	NRS11 NRS12	Core Machines & Amine gas distribution system		Acid Scrubber Acid Scrubber	NRCS11 NRCS12	VOC, TEA VOC, TEA	SOP 6/14/2000 as amended
NRE25		Core drying oven					
NRE08 (a, b &c) & NRE09 (a, b, &c)	NRDC03 NRDC08	Core sand heaters		Baghouse Baghouse	NRC03 NRC08	Particulate Particulate	SOP 6/14/2000 as amended
NRE56	NRDC03 NRDC07 NRDC09 NRDC11	Storage bins, conveyors, elevators and other sand handling equipment: including mechanical sand reclaim system with natural gas dryer		Baghouse Baghouse Baghouse Baghouse	NRC03 NRC07 NRC09 NRC11	Particulate Particulate Particulate Particulate	SOP 6/14/2000 as amended
NRE11 through NRE20		Ladle heaters					

*The Size/Rated capacity and PCD efficiency is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

2002 Annual Emissions Update								
Pollutant	CO	NO ₂	PB	PM	PM ₁₀	PM _{2.5}	SO ₂	VOC
Tons/year	477	43	0.2	161	161	161	32	160

EMISSION UNIT APPLICABLE REQUIREMENTS – New River & Radford Foundry

Limitations

Emissions from operation of the combined gray iron/ductile iron foundry shall not exceed the limits specified below:

<i>Particulate Matter</i>	<i>2.04 tons/day</i>	<i>548.3 tons/yr</i>
<i>PM-10</i>	<i>2.04 tons/day</i>	<i>548.3 tons/yr</i>
<i>Sulfur Dioxide</i>	<i>0.48 tons/day</i>	<i>154.0 tons/yr</i>
<i>Nitrogen Oxides</i> <i>(as NO₂)</i>	<i>0.59 tons/day</i>	<i>203.0 tons/yr</i>
<i>Carbon Monoxide</i>	<i>3.48 tons/day</i>	<i>926.2 tons/yr</i>
<i>Volatile Organic</i> <i>Compounds</i>	<i>1.23 tons/day</i>	<i>355.3 tons/yr</i>

(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 13 of SOP dated 6/14/2000 as amended)

The condition above establishes the facility wide emissions cap. The following two conditions establish emission trading between the two plants under the VA SOP regulation.

The production rate of melted metal shall not exceed 250,000 tons per year for the New River Foundry (NRC) and 127,750 tons per year for the Radford Foundry (LFC). When the New River Foundry (NRC) production rate is above 98,129 tpy, the annual melt rate in the Radford Foundry (LFC) must be reduced based on the annual melt rate in the New River Foundry (NRC) according to the following equation:

$$Y_A = m_A X_A + b_A$$

where: $Y_A = \text{New River Foundry (NRC) melt rate, tons/yr}$
 $X_A = \text{Radford Foundry (LFC) melt rate, tons/yr}$
 $m_A = -9.36 \text{ (slope of line)}$
 $b_A = 1,293,869 \text{ (intercept)}$

(9 VAC 5-80-800 et seq., 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 10 of SOP dated 6/14/2000 as amended)

The production rate of melted metal shall not exceed 800 tons per day for the New River Foundry (NRC) and 480 tons per day for the Radford Foundry (LFC). When the New River Foundry (NRC) production rate is above 409 tpd, the daily melt rate in the Radford Foundry (LFC) must be reduced based on the daily melt rate in the New River Foundry (NRC) according to the following equation:

$$Y_D = m_D X_D + b_D$$

where: $Y_D = \text{New River Foundry (NRC) melt rate, tons/day}$
 $X_D = \text{Radford Foundry (LFC) melt rate, tons/day}$
 $m_D = -8.46 \text{ (slope of line)}$
 $b_D = 4,470 \text{ (intercept)}$

(9 VAC 5-80-800 et seq., 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 11 of SOP dated 6/14/2000 as amended)

Fugitive Dust/VOC Emission Controls – Unless specified elsewhere in this permit, Fugitive dust and Fugitive emission controls shall include the following, or equivalent, as a minimum:

- a. *Dust from material handling and load-outs, shall be controlled by wet suppression or equivalent (as approved by the DEQ).*
- b. *The permittee shall plant and maintain an area of vegetation (windbreak, 12 ft tall evergreen trees) between the New River Foundry (NRC) and the Newtown area.*
- c. *All material being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.*
- d. *Dust from haul roads and traffic areas shall be controlled by the application of asphalt, water, suitable chemicals, or equivalent methods approved by the DEQ.*

e. *Reasonable precautions shall be taken to prevent deposition of dirt on public roads and subsequent dust emissions. Trucks leaving the site shall have clean wheels, achieved by use of a wheel washer or equivalent. Dirt, product, or raw material spilled or tracked onto paved surfaces, public or private, shall be promptly removed to prevent particulate matter from becoming airborne.*

f. *Volatile organic compounds shall not be intentionally spilled, discarded to sewers, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.*

(9 VAC 5-80-850, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 23 of SOP dated 6/14/2000 as amended)

The preceding fugitive emission condition was established in the SOP to address problems at the facility. There may be some overlap between this condition and the fugitive requirement in the General Conditions. Compliance shall be with the stricter requirement. The General Conditions requirement additionally covers construction and demolition as well.

The permittee shall maintain two employees certified in conducting opacity determinations in accordance with 40 CFR Part 60, Appendix A, Method 9- Visual Determination of Opacity of Emissions from Stationary Sources. If for any reason a certified employee leaves the company, an additional employee shall be certified within a 6 month period.

(9 VAC 5-80-850, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 24 of SOP dated 6/14/2000)

The condition requires two employees to be certified to make opacity determinations. The certification is intended to be for employees who work on a daily basis at the New River Foundry or the Radford Foundry.

Particulate emissions from the New River Foundry (NRC) production, sand handling, and finishing equipment shall be controlled by fabric filters

(9 VAC 5-80-850, 9 VAC 5-50-260, 9 VAC 5-80-110 & Condition 3 of SOP dated 6/14/2000 as amended)

VOC emissions from the New River Foundry (NRC) core machines and resin/sand mixing shall be controlled by acid scrubbers, each having a minimum control efficiency of 80 percent.

(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 4 of SOP dated 6/14/2000 as amended)

*Particulate emissions from the Radford Foundry (LFC) production, sand handling, finishing, and EDAP equipment shall be controlled by fabric filters.
(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 5 of SOP dated 6/14/2000 as amended)*

*Carbon monoxide emissions from the Radford Foundry (LFC) cupolas shall be controlled by an afterburner.
(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 6 of SOP dated 6/14/2000 as amended)*

*The consumption of additive powders for the Radford Foundry (LFC) EDAP system shall not exceed 3,360 lb/day and shall not exceed 613 tons/year, calculated monthly as the sum of each consecutive 12 month period.
(9 VAC 5-80-850, 9 VAC 5-50-260, 9 VAC 5-80-110 & Condition 12 of SOP dated 6/14/2000 as amended)*

Particulate or PM-10 emissions from the operation of the New River Foundry (NRC) fabric filters shall not exceed the limits specified below:

<i>Fabric Filter Number</i>	<i>Process(es)</i>	<i>PM or PM-10 Limit, gr/dscf</i>
<i>NRC DC-1</i>	<i>Melting</i>	<i>0.01</i>
<i>NRC DC-2</i>	<i>Melting</i>	<i>0.01</i>
<i>NRC DC-3</i>	<i>Line 2 Mold Cooling, Sand Handling, Shakeout, & Rework</i>	<i>0.01</i>
<i>NRC DC-4</i>	<i>Line 2 Cast. Cooling & Shakeout</i>	<i>0.01</i>
<i>NRC DC-5</i>	<i>Cleaning & Grinding</i>	<i>0.01</i>
<i>NRC DC-6</i>	<i>Cleaning, Grinding, & Blasting</i>	<i>0.01</i>
<i>NRC DC-7</i>	<i>Line 1 Sand Handling, Pouring, Cooling, & Shakeout</i>	<i>Unspecified</i>
<i>NRC DC-8</i>	<i>Blasting & Core Sand Heaters</i>	<i>Unspecified</i>
<i>NRC DC-9</i>	<i>Sand Handling</i>	<i>Unspecified</i>
<i>NRC DC-10</i>	<i>Line 2 Pouring</i>	<i>Unspecified</i>
<i>NRC DC-11</i>	<i>Sand Reclaim System</i>	<i>Unspecified</i>
<i>NRC DC-12</i>	<i>Melting, Preheating & Metal Treatment</i>	<i>Unspecified</i>
<i>NRC-DC13</i>	<i>Waste Handling</i>	<i>Unspecified</i>

(9 VAC 5-80-850, 9 VAC 5-50-260, 9 VAC 5-80-110 & Condition 14 of SOP dated 6/14/2000 as amended)

Particulate or PM-10 emissions from the operation of the Radford Foundry (LFC) fabric filters shall not exceed the limits specified below:

<i>Fabric Filter Number</i>	<i>Process(es)</i>	<i>PM or PM-10 Limit, gr/dscf</i>
<i>LFC DC-1</i>	<i>Finishing, Snag Grind., Rework Blast Machine, & Belt Blast #4</i>	<i>0.01</i>
<i>LFC DC-2</i>	<i>Mold Cooling</i>	<i>0.01</i>
<i>LFC DC-3</i>	<i>Finishing Operations</i>	<i>Unspecified</i>
<i>LFC DC-5</i>	<i>Shotblast Machine No. 2</i>	<i>0.01</i>
<i>LFC DC-6</i>	<i>Shotblast Machine No. 5</i>	<i>0.01</i>
<i>LFC DC-7</i>	<i>Finishing Operations</i>	<i>Unspecified</i>
<i>LFC DC-8</i>	<i>Sand Transport, Process, Stor.</i>	<i>Unspecified</i>
<i>LFC DC-9</i>	<i>Metal Pouring & Cupola Forehearth</i>	<i>0.01</i>
<i>LFC DC-10</i>	<i>Waste Handling</i>	<i>Unspecified</i>
<i>LFC DC-11</i>	<i>Sand & Shot Handling Operations</i>	<i>Unspecified</i>
<i>LFC DC-12</i>	<i>Shakeout, Shot Handling</i>	<i>Unspecified</i>
<i>LFC DC-13</i>	<i>Sand Transport, Processing & Storage</i>	<i>Unspecified</i>
<i>LFC DC-16</i>	<i>Cupola/Dry Powder Injection</i>	<i>Unspecified</i>

(9 VAC 5-80-850, 9 VAC 5-50-260, 9 VAC 5-80-110 & Condition 15 of SOP dated 6/14/2000 as amended)

The approved fuels for the New River Foundry (NRC) scrap preheater, space heaters, ladle heaters, and all sand/core heaters is natural gas and propane.

(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 7 of SOP dated 6/14/2000 as amended)

The following condition has been reworded in the Title V permit to limit fuels to all space heaters.

The approved fuels for the Radford Foundry (LFC), space heaters, cupola afterburner, cupola combustion air preheater, and all sand/core/mold heaters are natural gas and propane.

(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 8 of SOP dated 6/14/2000 as amended)

The approved fuels for the Radford Foundry (LFC) ladle heaters are No. 2 fuel oil, No. 4 fuel oil, propane and natural gas.

(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 9 of SOP dated 6/14/2000 as amended)

The following condition was reworded to clarify that only NRC acid scrubbers shall have no visible emissions.

Visible emissions from the New River Foundry (NRC) processes (excluding the VOC scrubbers on core production), including the fabric filter exhaust stacks, shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A), except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent opacity. There shall be no visible emissions from the scrubber stacks. This condition applies at all times except during start-up, shutdown, or malfunction.

(9 VAC 5-50-260, 9 VAC 5-170-160, 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 16 of SOP dated 6/14/2000 as amended)

Condition 17 a below is being streamlined out of the Title V permit. It established limits prior to 9/1/2002. That date has passed and the condition is now obsolete.

Prior to September 1, 2002: *Visible emissions from the Radford Foundry (LFC) Hutchinson Mold Machines (LF24 and LF63), and from the exhaust from Fabric Filter Nos. LFC DC-1, DC-2, DC-5, DC-6 and DC-9 shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A), except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.*

(9 VAC 5-50-260, 9 VAC 5-170-160, 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 17a of SOP dated 6/14/2000 as amended)

Beginning September 1, 2002: *Visible emissions from the Radford Foundry (LFC Section) Hutchinson Mold Machines (LF24 and LF63), and the exhaust from Fabric Filter Nos. LFC DC-1, DC-2, DC-3, DC-5 through DC-13 and DC-15, shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A),*

except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.

(9 VAC 5-40-80, 9 VAC 5-170-160, 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 17b of SOP dated 6/14/2000 as amended)

After completion of construction required by the plan to meet a 5% facility wide opacity limit:

Visible emissions from all Radford Foundry processes, including fabric filter exhaust stacks, shall not exceed five percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A), except during one six-minute period in any one hour in which visible emissions shall not exceed thirty percent opacity. This condition applies at all times except during start-up, shutdown, or malfunction.

(9 VAC 5-170-160, 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 18 of SOP dated 6/14/2000 as amended)

The preceding condition was added for clarification. It identifies the current opacity requirement for existing sources at the Radford Foundry, and includes the scheduled 5% facility wide opacity requirement required by Condition 18 of the SOP. Existing sources at the Radford Foundry, while required to meet the 5% during normal operation, are also required to meet the existing source opacity standard of 9 VAC 5-40-80. The existing source standard at 9 VAC 5-40-80 applies at all times, including periods of startup, shutdown and malfunction. See "Inapplicable Requirements" and "Streamlined Requirements" for further discussion on this topic.

The following condition establishes a schedule for completion of an evaluation of the existing Radford foundry emissions to determine additional controls that may be required to meet the scheduled 5% opacity limit. It includes a timeframe for the study of emissions from the plant, the development of a construction plan for additional control equipment needed to meet the new 5% requirement, actual construction of the additional controls and particulate modeling for the combined facility. The condition as it appears in the Title V permit has been amended to allow for the shut down all or portions of the Radford Foundry as a means of compliance. In lieu of a compliance plan and construction plan, the facility may submit a shut down progress report if that is the chosen method of compliance. The modeling demonstration will still be required for any equipment still in operation as of December 2004.

In order to address particulate emissions from the Intermet Corporation facility, Intermet Corporation shall adhere to the following schedule:

- a. *By April 1, 2003, Intermet Corporation shall submit a revised compliance plan to meet a 5% opacity requirement for the Radford Foundry (LFC) portion of the facility..*
- b. *By April 1, 2003, Intermet Corporation shall submit a revised construction plan and schedule for the implementation of the compliance plan required in a..*
- c. *By June 1, 2003, provide a status report on installation of any equipment identified in the construction plan required in b., and update the status report quarterly thereafter.*
- d. *By December 31, 2004, Intermet shall have completed construction of all equipment identified in the construction plan and completed a demonstration that the impact of respirable particulate (PM_{10}) emissions from the combined facility (New River Foundry and Radford Foundry) do not violate state and national ambient air quality standards as listed in Section 9 VAC 5-30-60.*

(9 VAC 5-80-850, 9 VAC 5-80-110 H.2, 9 VAC 5-170-160 & Condition 18 of SOP dated 6/14/2000 as amended)

Emissions from waste transfer at the Sand Reclaim baghouse (NRC DC-11), Lonestar baghouse (NRC DC-3), Kockums baghouse (NRC DC-4) and the 603 baghouse (NRC DC-7) shall be controlled by full enclosure of the lower portion of each baghouse. Each enclosure shall be equipped with a vacuum system to clean spilled waste.

(9 VAC 5-50-90, 9 VAC 5-80-850, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 19 of SOP dated 6/14/2000)

Emissions from the NRC 2070 exterior sand handling chute, the NRC 2070 line scrap/sprue chute, and the NRC 2130 scrap/ sprue chute shall be controlled by enclosure.
(9 VAC 5-50-90, 9 VAC 5-80-850, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 20 of SOP dated 6/14/2000 as amended)

Waste sand, waste dust and debris shall not be handled or stored outside uncovered. The permittee shall construct one or more buildings for waste dust and waste sand handling and loadout. The traffic area outside the waste handling building(s) shall be paved (Paving to be completed by October 1, 2002). The area around the outside of the waste handling building(s), including haul roads shall be kept free of waste sand and waste

dust.

(9 VAC 5-50-90, 9 VAC 5-80-850, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 21 of SOP dated 6/14/2000 as amended)

The NRC metal scrap and charge handling area shall be enclosed to prevent dust from becoming airborne.

(9 VAC 5-50-90, 9 VAC 5-80-850, 9 VAC 5-170-160, 9 VAC 5-80-110 & Condition 22 of SOP dated 6/14/2000 as amended)

The maximum sulfur content of the No. 4 fuel oil and the No. 2 fuel oil to be burned by the Radford Foundry (LFC) ladle heaters shall not exceed 1.0 percent by weight and 0.5 percent by weight, respectively, per shipment. The permittee shall obtain a certification from the fuel supplier with each shipment of oil, including, for the No. 4 oil, sampling and analysis representative of each shipment. Each fuel supplier certification shall include the following:

- a. The name of the fuel supplier,*
- b. The date on which the oil was received,*
- c. The volume and type (No. 2 or No. 4) of oil delivered in the shipment,*
- d. The sulfur content of the No. 4 fuel oil,*
- e. Documentation of sampling of the No. 4 fuel oil indicating the location of the oil when the sample was drawn,*
- f. The method used to determine the sulfur content of the No. 4 fuel oil, and, a statement that the No. 2 fuel oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2.*

(9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 25 of SOP dated 6/14/2000 as amended)

Emissions shall be controlled by proper operation and maintenance of air pollution control equipment. The permittee shall develop, maintain, and have available to all operators good written operating procedures and a maintenance schedule for the air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at minimum. Records of service and maintenance shall be maintained on file by the permittee for the most current five year period and shall be made available

*to DEQ personnel upon request
(9 VAC 9 VAC 5-50-20E, 9 VAC 5-80-850, 9 VAC 5-80-110 & Condition 26 of SOP dated
6/14/2000 as amended)*

The facility is subject to the state existing source standard, 9 VAC 5-40-2390 through 9 VAC 5-40-2520, Emission Standards for Primary and Secondary Metal Operations. Particulate emissions from processes that are not well controlled must comply with existing source particulate standard. Devices controlled by baghouses with a 5% opacity limit are assumed to meet the standard. Process units vented to baghouses that do not meet a 5% opacity limit must at least demonstrate compliance with the hourly maximum emission limits. The facility will also have to calculate actual annual emissions monthly for the entire facility.
(9 VAC 5-40-2390)

The SO₂ emission standard in Rule 4-4, 9 VAC 5-40-280 applies to this facility. Rule 4-18 has no SO₂ standard for sulfur, in the absence of a specific standard, then the general standard applies. Combustion units, including the cupola, must meet the SO₂ requirements found at 9 VAC 5-40-280. Units required to burn only No.2 fuel oil (sulfur content 0.5% or less), No.4 fuel oil (sulfur content 1% or less), natural gas and/or propane are assumed to meet this standard. This condition does not apply to units exempted by 9 VAC 5-40-240 C.
(9 VAC 5-40-280)

Monitoring

The monitoring requirements of the state operating permit have been modified to meet Part 70 requirements.

*Fabric Filters: Each fabric filter shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. Pressure drop shall be checked and recorded at least once per week.
(9 VAC 5-80-110 & Conditions 3 & 5 of 6/14/2000 as amended Permit)*

*Scrubbers: The scrubber shall be equipped with a flow meter, a pH meter and a device to continuously measure the differential pressure drop through the scrubber. Flow rate, pH and pressure drop shall be checked and recorded at least once per week.
(9 VAC 5-80-110)*

Cupola Afterburner: The after burner shall be equipped with a device to continuously

measure temperature in the ductwork. The temperature shall be checked and recorded at least once per week..
(9 VAC 5-80-110)

The three conditions above were established to require at least weekly readings of pollution control monitoring equipment to ensure the control equipment is operating in compliance with the permit. They require records to establish periodic monitoring of the control equipment

The permit states that permittee shall take the following measures in order to minimize the duration and frequency of excess emissions:

- a. *Develop and maintain a comprehensive air pollution control device maintenance manual to be approved by the DEQ. The manual shall include at a minimum:*
 - (1) *A schedule for routine maintenance of all air pollution control devices,*
 - (2) *An inspection schedule, monthly at a minimum, to insure the operational integrity of the air pollution control devices.*
- b. *Have available written operating procedures for air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.*
- c. *Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.*
- d. *Maintain an inventory of spare parts that are needed to maintain the air pollution control devices in proper working order to minimize emissions.*

Records of maintenance, inspections and training shall be maintained on site for a period of five (5) years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110, 9 VAC 5-80-110 F & K, 9 VAC 5-40-20E, 9 VAC 5-50-20 E)

The above condition incorporates a condition of the consent order and provides periodic monitoring through proper operation and maintenance of the control equipment. Inclusion of the DEQ approval of the operation and maintenance plan eliminates the need for the compliance plan section of the Title V permit. The manual was initially approved

by the DEQ on October 2, 2003. The condition was expanded to enhance the periodic monitoring of the existing SOP conditions.

Visible Emissions: - Each emissions unit with a visible emissions requirement in this permit shall be observed visually at least once each calendar month in which the emissions unit operates. Observations shall be conducted more frequently upon request by the DEQ or EPA. Initially, all units shall be observed weekly upon the effective date of this permit, frequency of observations shall continue to be weekly unless otherwise approved in writing by the WCRO compliance manager. The visual observations shall be conducted using 40 CFR 60 Appendix A Method 22 techniques (condensed water vapor/steam is not a visible emission) for at least a brief time to only identify the presence of visible emissions. Each emissions unit in the Method 22 technique observation having visible emissions shall be evaluated by conducting a 40 CFR 60 Appendix A Method 9 visible emissions evaluation (VEE) for at least six (6) minutes, unless corrective action is taken that achieves no visible emissions. 40 CFR 60 Appendix A Method 9 requires the observer to have a Method 9 certification that is current at the time of the VEE. If any of these six (6) minute VEE averages exceed the unit's opacity limitation, a VEE shall be conducted on these emissions for at least 3 six minute periods (at least 18 minutes). All visible emission observations, VEE results, and corrective actions taken shall be recorded.
(9 VAC 5-80-110 E)

The preceding condition was added for purposes of establishing additional periodic monitoring. The condition requires observation for visible emissions once per week, requires corrective action and/or determination of compliance with the opacity limit.

Recordkeeping

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include: tons of metal melted in the New River Foundry (NRC); tons of metal melted in the Radford Foundry (LFC); tons of sand handled in the Radford Foundry (LFC); tons of cores produced in the New River Foundry (NRC); gallons each, of No. 2 and of No. 4 fuel oil combusted in the Radford Foundry (LFC); records of all scheduled and non-scheduled maintenance, records of inspection results; checks on monitoring equipment and readings; and pollutant specific emission factors and sample calculations.

Testing

The SOP required initial performance tests on the new packed bed scrubbers for VOC control

and a simultaneous Visible Emissions Evaluation. This testing has been completed in the last two years, so no additional testing during this permit term is specified for these units. The proposed MACT Standard, 40 CFR 63 Subpart EEEEE, will require testing as a compliance demonstration. These requirements will occur during this permit term. These tests shall serve to show compliance with the terms of this permit during its term. Additional testing may be required upon renewal. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting - (See also General Requirements)

Streamlined Requirements

Conditions 1, 2 and 30 through 35 of the June 14, 2000 SOP have been streamlined out of the Title V permit. Conditions 1 & 2 relate to the SOP Application and the equipment list. The Title V program has more stringent requirements. The remaining conditions are general conditions from the SOP program. These conditions are not applicable and are duplicated by the General Conditions contained in the Title V permit.

Condition 17a of the amended SOP has been streamlined out because the condition is obsolete.

Conditions 27 and 28 of the SOP have streamlined out of the Title V permit because the initial performance testing specified has been completed.

Emission units that are controlled by fabric filters that must meet a 5% opacity limit are assumed to be in compliance with the existing source rules for particulate emissions, as they apply to particulate emissions. The specified opacity requirement is indicative of a more stringent requirement than the existing source rule found at 9 VAC 5-40-2390, and those existing source requirements are therefore streamlined out of the Title V permit for those units. The existing source opacity requirement 9 VAC 5-40-80 still applies to existing sources during periods of startup, shutdown and malfunction, except that during normal operation, the 5% limit will apply.

Fuel limitations have been expanded to assure low sulfur content fuels from space heaters and most other combustion units.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also

requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §§2.1-20.01:2 and §10.1-1185 of the Code of Virginia, and the “Department of Environmental Quality Agency Policy Statement NO. 3-2001”.

This general condition cites the entire Article that follows:
Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:
9 VAC 5-80-80. Application
9 VAC 5-80-140. Permit Shield
9 VAC 5-80-150. Action on Permit Applications

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emissions reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

This general condition cites the sections that follow:

9 VAC 5-40-50. Notification, Records and Reporting
9 VAC 5-50-50. Notification, Records and Reporting

H. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition H and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction
9 VAC 5-80-110. Permit Content

M. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources
9 VAC 5-80-190. Changes to Permits.
9 VAC 5-80-260. Enforcement.
9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and
Modifications Locating in Prevention of Significant Deterioration Areas
9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major
Modifications Locating in Non-attainment Areas

Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains citations from the Code of Federal Regulations as follows:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.
40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.
40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

This general condition cites the regulatory sections that follow:

9 VAC 5-60-70. Designated Emissions Standards
9 VAC 5-80-110. Permit Content

STATE ONLY APPLICABLE REQUIREMENTS

Specific requirements only enforceable by the State and have been identified as applicable by the applicant:

- None Identified as being applicable.

The permit includes a state only section for state toxic requirements. Intermet has state toxic rule limits that are state only enforceable for Triethylamine in the current State Operating Permit.

FUTURE APPLICABLE REQUIREMENTS

At this time there are no future applicable requirements that can be incorporated or scheduled into the permit at this time. However, there are four National Emission Standards for Hazardous Air Pollutants that may apply to the facility. They are:

- 40 CFR 63 Subpart EEEEE, National Emission Standards for Hazardous Air Pollutants for Iron & Steel Foundries. This subpart will be applicable.
- 40 CFR 63 Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial/ Commercial/ Institutional Boilers & Process Heaters, currently proposed. This subpart may be applicable to the Cupola Preheater if the unit is not shutdown.
- 40 CFR 63 Subpart MMMM, National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts & Products, currently proposed. This subpart may be applicable to the rust inhibitor dip processes.
- 40 CFR 63 Subpart GGGGG, National Emission Standards for Hazardous Air Pollutants: Site Remediation, currently proposed. This subpart may be applicable to remediation activities at the facility

Intermet shall comply with the final MACT standards according to the schedule contained in each of the promulgated subparts if applicable. Since the facility will be subject to 40 CFR 63 Subpart EEEEE, a general statement has been included in the permit that Intermet will be subject and a specific condition was included stating that the facility will comply with the MACT according to the compliance schedule contained in the promulgated subpart. The remaining NESHAPs will be incorporated into the permit at the appropriate time when they are determined to be applicable. Each NESHAP that is determined to be applicable will be complied with according to the schedule for compliance contained in the appropriate Subpart of 40 CFR 63.

INAPPLICABLE REQUIREMENTS

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A.4 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

Intermet has a 5% facility wide opacity limit contained in their State Operating Permit. This condition is federally enforceable and was agreed to by the company for all sources including existing sources. This limit is not an existing source standard and therefore the exclusion for startup, shutdown and malfunction is warranted for this limit. However, existing units at the facility are also subject to the existing source opacity standard found at 9 VAC 5-40-80. There is no exclusion for this limit. The opacity conditions have been amended to include the 20% opacity requirement for periods of startup, shutdown and malfunction. There is no exclusion to this limit for units that are not explicitly exempted per 9 VAC 5-40-10 B.

COMPLIANCE PLAN - NA.

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation ¹	Pollutant(s) Emitted	Rated Capacity
Radford Foundry (LFC)				
	LFC Pattern Shop	9 VAC 5-80-720 C		
LFE01	Space heaters	9 VAC 5-80-720 C		
LFE28	Cupola Afterburners (4 total)	9 VAC 5-80-720 C		4 MMBtu/hr each

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Emission Unit No.	Emission Unit Description	Citation ¹	Pollutant(s) Emitted	Rated Capacity
LFT01	No. 2 or No. 4 Fuel oil storage tank	9 VAC 5-80-720 C		10,000 gal each
LFT02 through LFT04	Resin storage tanks	9 VAC 5-80-720 C		4,000 gal each
LFT05 through LFT12	Propane storage tanks	9 VAC 5-80-720 C		30,000 gal each
	Used oil tank	9 VAC 5-80-720 C		550 gal
	Used oil tank	9 VAC 5-80-720 C		275 gal
	Engine oil tank	9 VAC 5-80-720 C		275gal
	Hydraulic oil tank	9 VAC 5-80-720 C		275 gal
	Compressor oil tank	9 VAC 5-80-720 C		275 gal
	Unleaded gasoline tank	9 VAC 5-80-720 C		550 gal
	Low sulfur diesel tank	9 VAC 5-80-720 C		500 gal
	Kerosene tank	9 VAC 5-80-720 C		275 gal
New River Foundry (NRC)				
	NRC Pattern Shop	9 VAC 5-80-720 C		
NRE01	Space heaters	9 VAC 5-80-720 C		
NRE10	Moist sand ductwork heaters (2)	9 VAC 5-80-720 C		2.5 MM Btu/hr (each)
NRE60	Emergency Diesel Generator (2130 Disa Equip no. 9593)	9 VAC 5-80-720 B		85 KW/106 KVA
NRE61	Emergency Diesel Generator (Sub 4 Equip no. 9672)	9 VAC 5-80-720 B		75 KW/93.8 KVA
NRT01 & NRT02	Core resin storage tanks	9 VAC 5-80-720 C		8,000 gal each
NRT03 through NRT06	Resin storage tanks	9 VAC 5-80-720 C		550 gal each

Emission Unit No.	Emission Unit Description	Citation ¹	Pollutant(s) Emitted	Rated Capacity
NRT07 & NRT08	Propane storage tanks	9 VAC 5-80-720 C		30,000 gal each
	Used oil tank	9 VAC 5-80-720 C		1,000 gal
	Engine oil tank	9 VAC 5-80-720 C		275 gal
	Automatic transmission fluid tank	9 VAC 5-80-720 C		275 gal
	Diesel tank	9 VAC 5-80-720 C		1000 gal
	Hydraulic fluid tank	9 VAC 5-80-720 C		3,000 gal
	Kerosene tank	9 VAC 5-80-720 C		275 gal
	Unleaded gasoline tank	9 VAC 5-80-720 C		300 gal
	Portable hydraulic oil tanks, 4 total	9 VAC 5-80-720 C		300 gal/ each
	Parting fluid tanks, 2 total	9 VAC 5-80-720 C		275 gal/ each

¹The citation criteria for insignificant activities are as follows:

9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application

9 VAC 5-80-720 B - Insignificant due to emission levels

9 VAC 5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

- None Identified

PUBLIC PARTICIPATION

A public notice regarding the draft permit was published in the September 10, 2003, edition of the Roanoke Times. The public comment period expired on October 10, 2003 at 4:30 p.m.

Additional comments were received from the source, Intermet Corporation during the public comment period. The comments have been addressed and where appropriate, changes were incorporated into the proposed permit. Opacity conditions were altered in the final permit as well as the basis, allowing an exclusion for startup shutdown and malfunction from the 5% facility wide opacity limit consistent with the state operating permit issued to the source. A 20% opacity requirement (with 6 minute exception to 60%) was added for existing equipment at the Radford Foundry for periods of startup, shutdown and malfunction. Other changes include:

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effective date of permit, Condition III.A.22 updated to reflect the appropriate emissions table, permit and SOB were noted to show the DEQ approval date of the required O&M manual, term "process heater" replaced by "combustion unit" to remove confusion between the state existing source standard and the proposed federal MACT Subpart DDDDD, exemption reference added to the existing source sulfur standard. Intermet requested a change to language concerning the frequency of visible emission evaluations; no change was made.